

WHAT IS CLAIMED IS:

1. A multi-layer garment system, comprising:

a primary garment including a thermal layer with at least one raised surface; and
an outer shell garment constructed to be worn over the primary garment, including
5 a first portion comprising a fabric that is breathable, water repellent, and wind
resistant, the body defining an upper portion and a lower portion, and
a second portion comprising a vapor permeable moisture barrier that is
substantially waterproof and windproof.

10 2. The system of claim 1 wherein the shell garment is formed entirely of the fabric.

3. The system of claim 2 wherein the vapor permeable moisture barrier comprises a coating
formed on the fabric.15 4. The system of claim 3 wherein the coating comprises a polymer selected from the group
consisting of acrylic, polyurethane, silicon polymer.5. The system of claim 2 wherein the vapor permeable moisture barrier comprises a laminate
formed on the fabric.20 6. The system of claim 5 wherein the laminate comprises a breathable film of PTFE,
polyurethane, polyester polyether.7. The system of claim 1 wherein the second portion comprises a second fabric different
25 from the fabric of the first portion.

8. The system of claim 1 or 5, wherein the first portion comprises a tightly-woven fabric.

9. The system of claim 5 wherein the second portion comprises a tightly-woven fabric with a
30 lower air permeability than the first portion.

10. The system of claim 1 wherein the first and second portions comprise lower and upper portions, respectively, of a jacket.
- 35 11. The system of claim 10, wherein the upper portion of the jacket includes a shoulder surface and a top sleeve surface.
12. The system of claim 11 wherein the lower portion includes an underarm area of the jacket.
- 40 13. The system of claim 1, wherein the primary garment comprises a compartment for receiving the outer shell.
14. The system of claim 13, wherein the compartment is defined by a pouch or pocket
- 45 associated with the primary garment.
15. The system of claim 1, wherein the first portion provides an air permeability of between about one and about ten cubic feet per minute in a thirty mile per hour wind.
- 50 16. The system of claim 1, wherein the second portion provides an air permeability of one cubic feet per minute or less in a thirty mile per hour wind.
17. The system of claim 1, wherein the thermal layer includes a fleece.
- 55 18. The system of claim 1, wherein the thermal layer includes a double-face velour.
19. The system of claim 1, wherein the thermal layer includes a channeled region constructed to provide circulation of air permeating through the first portion of the shell.
- 60 20. The system of claim 19, wherein the thermal layer includes a front portion having a raised surface extending from a shoulder region down over a chest region to a waistline and a

back portion having a raised surface with channels within the raised surface and extending from the shoulder region down each arm.

65 21. The system of claim 20, wherein the thermal layer includes a pair of sleeve portions, each sleeve portion having a raised surface shorter than the raised surface of the front portion and extending from the shoulders region down each arm.

70 22. The system of claim 20, wherein the thermal layer includes a pair of sleeve portions, each sleeve portion having a raised surface less dense than the raised surface of the front portion and extending from the shoulders region down each arm.

75 23. The system of claim 20, wherein the back portion extends over the shoulder region and around a neckline and the front portion extends from the back portion down over a chest region to the waistline.

24. The system of claim 19, wherein the channeled region includes channels on the raised surface that run vertically and horizontally.

80 25. The system of claim 1, wherein the shell comprises a micro-fiber textile material.

26. The system of claim 1, wherein the thermal layer comprises a high loft, sweater-knit and micro-grid fabric.

85 27. The system of claim 1, wherein the thermal layer comprises a high loft of about 8/32 inch to about 12/32 inch on both front and back.

28. The system of claim 1, wherein the shell is releasably connected to the thermal layer at the waist, wrist and neck.

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29. A lightweight shell garment for use with a primary garment, the shell comprising:

a first portion comprising a tightly-woven fabric, the fabric being breathable, water-repellent, and wind-resistant; and

a second portion comprising of a vapor permeable moisture barrier that is waterproof
95 and windproof.

30. The lightweight shell of claim 29 wherein the first and second portions comprise lower and upper portions, respectively, of a jacket.

100 31. The lightweight shell of claim 30, wherein the upper portion of the jacket includes a shoulder surface and a top sleeve surface.

32. The lightweight shell of claim 29, wherein the first portion provides an air permeability of between about one and about ten cubic feet per minute in a thirty mile per hour wind.

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33. The lightweight shell of claim 29, wherein the second portion of the body provides an air permeability of one cubic feet per minute or less in a thirty mile per hour wind.

34. The lightweight shell of claim 29 wherein the shell garment is formed entirely of the
110 fabric.

35. The lightweight shell of claim 34 wherein the vapor permeable moisture barrier comprises a coating formed on the fabric.

115 36. The lightweight shell of claim 35 wherein the coating comprises a polymer selected from the group consisting of acrylic, polyurethane, silicon polymer.

37. The lightweight shell of claim 29 wherein the second portion comprises a second fabric different from the fabric of the first portion.

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38. The lightweight shell of claim 29 or 37, wherein the first portion comprises a tightly-woven fabric.

125 39. The lightweight shell of claim 37 wherein the second portion comprises a tightly-woven fabric with a lower air permeability than the first portion.

40. The lightweight shell of claim 29, wherein the shell comprises a micro-fiber textile material.

130 41. A method of wearing a multi-layered garment, comprising:
wearing a primary garment including a thermal layer with at least one raised surface; and
wearing an outer shell garment constructed to be worn over the primary garment,
including a first portion comprising a fabric that is breathable, water repellent, and wind
resistant, a body defining an upper portion and a lower portion, and a second portion
135 comprising a vapor permeable moisture barrier that is waterproof and windproof.

42. The method of claim 41, further comprising:
removing the outer shell garment, while continuing to wear the primary garment, and
storing the outer shell in a compartment for receiving the outer shell.

43. The method of claim 42, wherein the compartment is defined by one of a pouch and a pocket associated with the primary garment.

44. A primary garment for use with a lightweight shell, the primary garment comprising:
a front portion comprising an insulating fabric having a raised surface, the front
portion extending from a shoulder region down over a chest region to a waistline and
140 a back portion comprising an insulating fabric having a raised surface with channels
within the raised surface , the back portion extending from the shoulder region down over
a back region to the waistline.

145 45. The primary garment of claim 44 wherein the channels are constructed to circulate air flowing through the shell.

46. The primary garment of claim 44, further comprising:

a pair of sleeve portions each having a raised surface shorter than the raised surface of the front portion and extending from the shoulder region down each arm.

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47. The primary garment of claim 44, further comprising:

a pair of sleeve portions each having a raised surface less dense than the raised surface of the front portion and extending from the shoulder region down each arm.

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48. The primary garment of claim 44, wherein

the back portion extends over the shoulder region and around a neckline and the front portion extends from the back portion down over a chest region to the waistline.

49. The primary garment of claim 44, wherein

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the channels of the raised surface run vertically and horizontally.

50. A multi-layer garment system, comprising:

a primary garment including a thermal layer, including

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a front portion having a raised surface and extending from a shoulder region down over a chest region to a waistline,

a back portion having a raised surface with channels within a raised surface and extending from the shoulder region down over a back region to the waistline, and

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a sleeve portion each having a raised surface shorter than the raised surface of the front portion and extending from the shoulders region down each arm and

an outer shell garment constructed to be worn over the primary garment, including

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a body constructed of a fabric, the fabric being breathable, water repellent, and wind resistant, the body defining an upper portion and a lower portion, and

a vapor permeable moisture barrier covering said upper portion of the body, the moisture barrier being waterproof and windproof,

wherein at least part of said lower portion is not covered by said moisture barrier.